

Privacy-Preserving First Responder Alert System

In a medical emergency every minute counts. While emergency services are generally very quick, first responders can have immense positive impact on a patient's further recovery and sometimes even their chance of survival. Trained first responders are often already part of many companies and most people have some first aid training that enables them to help in medical emergencies.

However, what if an emergency happens quite close to a well-trained first responder (or even a medical professional), but this person just does not know about it? With today's prevalent smartphone and wearable technology, it is obvious to integrate it in rescue operations. A service can automatically track the locations of first responders and dispatch them accordingly.

Such a system can help save lives, but it comes with a big privacy issues: the first responders must be location-tracked. This could be a reason for someone not to register with such a service. Furthermore, large scale tracking may be problematic from a legal perspective as well (consider the EU's General Data Protection Regulation).

The goal of this project or thesis is to develop a prototype of a privacy-preserving first responder alert system by devising an architecture, analyzing privacy issues, and finally selecting and implementing suitable privacy-enhancing technologies.

Suitable for students with an interest in security and privacy. A security background on the level of the *Security in IT-Systems* lecture is expected and it is beneficial to have attended *Privacy Engineering and Privacy Enhancing Technologies*.

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|  Master's Thesis | 30 CP |
|  Bachelor's thesis | 12 CP |
|  Project | 8/16 CP |

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If you are interested or you need additional details, feel free to contact me or drop by for a non-binding chat.

